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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NEAL E. WHITE and KENNETH W. CASHION JR.[1]

Appeal 2015-007184
Application 10/903,021
Technology Center 1700

Before CHUNG K. PAK, JEFFREY T. SMITH, and
WESLEY B. DERRICK, *Administrative Patent Judges*.

DERRICK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134(a) from the Examiner's maintained rejection of claims 1–3, 6–16, 19–24, 26, 53, 54, and 57.[2] We have jurisdiction pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

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[1] According to Appellants, the real party in interest is Alliance Food Equipment Processing, LLC. Appeal Brief filed February 19, 2015 ("App. Br."), 1.

[2] Non-Final Office Action entered September 5, 2014, 1.

CLAIMED SUBJECT MATTER

Appellants' claimed invention is generally directed to a system and method for manufacturing a frozen edible product. Spec. Abstract.

Claim 1 is illustrative:

> 1. A method for manufacturing a churned product having between 5% and 10% milk fat on a manufacturing system having a plurality of manufacturing stations, the manufacturing stations including a continuous mixer and a freezer, the method comprising:
>
> preparing a mix of ingredients for the product;
>
> providing a continuous supply of compressed air from a compressed air source ;
>
> continuously directing the mix and the compressed air through a first conduit and into the continuous mixer;
>
> creating an emulsion of the mix and the compressed air in the continuous mixer;
>
> directing the emulsion from the continuous mixer into the freezer wherein the continuous mixer is connected by a second conduit to the freezer;
>
> partially freezing the emulsion in the freezer; and
>
> selectively, continuously, and simultaneously transmitting both a first portion of the partially frozen emulsion from the freezer back into the first conduit, wherein the first portion of the partially frozen emulsion is recirculated and combines with the mix and compressed air in the first conduit which is continuously directed into the continuous mixer, and a second portion of the partially frozen emulsion to a further one of the manufacturing stations, wherein the further manufacturing stations do not include a cold extrusion process.

App. Br. 33 (Claims Appendix).

REJECTIONS

The Examiner maintains the following rejections[3]:

I. Claims 1–3, 6–16, 19–24, 26, 53, 54, and 57 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicants regard as the invention.

II. Claims 1–3, 6, 7, 9–12, 14–16, 19, 20, 22–24, 53, 54, and 57 under 35 U.S.C. § 103(a) as obvious over Applicants' Admitted Prior Art at pages 1–4 of Appellants' Specification and Figures 1–3 ("AAPA"), Swier (US 5,692,392, issued December 2, 1997) ("Swier"), Wakeman (US 2,975,617, issued March 21, 1961) ("Wakeman"), and Martin, Jr. et al. (US 6,352, 734 B1, issued March 5, 2002) ("Martin").

III. Claims 8 and 21 under 35 U.S.C. § 103(a) as obvious over AAPA, Swier, Wakeman, Martin, and Sullivan et al. (US 5,355,691, issued October 18, 1994) ("Sullivan").

IV. Claims 13 and 26 under 35 U.S.C. § 103(a) as obvious over AAPA, Swier, Wakeman, Martin, and Kress et al. (US 5,615,559, issued April 1, 1997) ("Kress").

DISCUSSION

Having carefully reviewed the Examiner's rejections in light of arguments advanced by Appellants in their Appeal Brief and Reply Brief,[4] we are not persuaded that the Examiner errs reversibly in concluding that claims 1–3, 6–16, 19–24, 26, 53, 54, and 57 are unpatentable for

[3] Examiner's Answer entered June 1, 2015 ("Ans.").
[4] Reply Brief filed July 24, 2015 ("Reply Br.").

obviousness, but we are persuaded that the Examiner errs in rejecting claims 1–3, 6–16, 19–24, 26, 53, 54, and 57 for indefiniteness. We add the following.

Rejection I

The Examiner notes that independent claims 1, 14, 53, 54, and 57 require the further manufacturing stations, further processing, and processes/systems recited in the claims to not include a cold extrusion process, while dependent claims 11 and 24 recite that the further manufacturing station is an extrusion system. Ans. 2–3. The Examiner finds that the difference between the excluded "cold extrusion" and required "extrusion system" is unclear because "cold" is a relative term, and it is uncertain what "cold extrusion" entails. *Id.*

However, the Examiner does not carry the burden of showing that one of ordinary skill in the art would not understand the scope and meaning of "cold extrusion" recited in the claims. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992) ("[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability"); *Amgen, Inc. v. Chugai Pharm. Co., Ltd.*, 927 F.2d 1200, 1217 (Fed. Cir. 1991) (A claim is considered indefinite under 35 U.S.C. § 112, second paragraph, if it does not reasonably apprise those skilled in the art of its scope). As Appellants correctly argue (App. Br. 10–11), the Specification provides sufficient guidance to allow one of ordinary skill in the art to understand that "cold extrusion" refers to slow churning that "follows freezing of the ice cream in the continuous-process freezer." Spec. ¶ 9. The Examiner does not establish that such slow churning is not well-known in the art, and thus the Examiner does not adequately show or explain

why the recitation of omitting cold extrusion, or slow churning, from the claimed methods and systems renders the scope of the claims unclear.

Therefore, we reverse the Examiner's rejection of claims 1–3, 6–16, 19–24, 26, 53, 54, and 57 under 35 U.S.C. § 112, second paragraph.

Rejection II

Claims 1, 7, 9–12, 14, 20, 22–24, 53, 54, and 57

Appellants effectively argue claims 1, 7, 9–12, 14, 20, 22–24, 53, 54, and 57 as a group on the basis of claim 1, to which we limit our discussion.[5] App. Br. 12–25, 28–29.

Relying on the disclosures of AAPA, Martin, Wakeman, and Swier, discussed below, the Examiner concludes that

> all [of] the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Ans. 8.

Appellants argue in essence that each of the applied prior art references—AAPA, Martin, Wakeman, and Swier—individually fail to disclose a process for manufacturing a churned product having between 5% and 10% milk fat that includes the step of selectively, continuously, and simultaneously transmitting both a first portion of the partially frozen emulsion from the freezer back into the first conduit, wherein the first

[5] Although Appellants provide separate arguments for claim 14, the arguments Appellants advance for claim 14 are essentially the same arguments that Appellants make for claim 1.

portion of the partially frozen emulsion is recirculated and combines with the mix and compressed air in the first conduit which is continuously directed into the continuous mixer. App. Br. 12–16.

Appellants further argue that the applied prior art references do not disclose a process for manufacturing a churned product having between 5% and 10% milk fat that does not include a slow churning or cold extrusion process. *Id.* at 15–16, 18–19. Appellants contend that AAPA discloses that such a product must be manufactured by a process that includes slow-churning. *Id.* at 19. Appellants further contend, relying on two Declarations of Neal White, dated January 29, 2013 ("first White Declaration") and August 21, 2013 ("second White Declaration"), that Martin discloses a process for producing ice milk that incorporates reduced milk fat but does not involve slow-churning, or recirculation as recited in claim 1, which results in an inferior product that does not have the texture of a churned product. App. Br. 15–16, 19.

Appellants contend that one of ordinary skill in the art seeking to produce a high quality, low milk fat product, upon review of AAPA's disclosure of known technology for producing such a product utilizing slow churning or cold extrusion, would not have been motivated to look to any other technology as an alternative, and thus would not have been led to incorporate a recycle stream as recited in claim 1 into the process of AAPA. *Id.* at 17.

However, we agree with the Examiner that the combined disclosures of the applied prior art reasonably would have led one of ordinary skill in the art to modify the process of AAPA, as suggested by Martin, Wakeman, and

Swier, to arrive at the method of claim 1 through no more than ordinary skill and creativity.

As the Examiner correctly finds, AAPA discloses a conventional system and process for producing ice cream having 10–16% milk fat that involves pumping product mix and pressurized air into a conduit, where the air mixes with the product mix, transmitting the product mix/air mixture from the conduit into a continuous mixer that mechanically shears the product mix/air mixture to create an emulsion, transmitting the emulsion into a continuous-process freezer having a dasher that churns the emulsion while a portion of the water in the mix is rapidly frozen, and pumping the partially-frozen emulsion from the continuous-process freezer into a further manufacturing station, such as an ingredient feeder, a package filler, or an extrusion system. Ans. 3–4; Spec. ¶¶ 2–7.

AAPA discloses that quality ice cream has an even mixture of small entrapped air cells, and also has an even mixture of small ice crystals and fat globules. Spec. ¶ 8. The Examiner correctly finds that AAPA discloses that smaller ice crystals provide a richer, smoother and creamier texture to the ice cream, and are produced by freezing the ingredient mix rapidly to a low temperature in the continuous-process freezer. Ans. 6; Spec. ¶ 8.

AAPA further discloses that reduced-fat ice cream containing between 5% and 10% milk fat can be produced to have a texture and creaminess similar to that of full-fat ice cream by adding an additional slow churning or cold extrusion step to the conventional process for producing ice cream after the step of freezing the emulsion in the continuous-process freezer. Spec. ¶ 9.

As the Examiner acknowledges, AAPA does not disclose a device and method for producing ice cream having a milk fat content of 5–10% that includes simultaneously transmitting a first portion of the partially frozen emulsion back to the first conduit where the compressed air, initial product mixture, and recycled emulsion are combined in the first conduit. Ans. 4.

However, consistent with the Examiner's findings, Martin discloses a process for producing a creamy frozen dairy product having from about 4% to about 16% milk fat that involves repeated agitation and mixing of ingredients, and Martin exemplifies a product having 5–10% milk fat. Ans. 4; Martin col. 3, ll. 57–60; col. 4, ll. 8–14, 40–44; col. 8, l. 54–col. 9, l. 12. The Examiner correctly determines that Martin's disclosures indicate that churned, frozen dairy products having 5–10% milk fat were conventionally made at the time of Appellants' invention without slow churning. Ans. 12.

Wakeman discloses an apparatus for the production of ice cream that includes a refrigerated chamber 10[6] to which a first conduit 12 is connected for introducing air into the chamber 10, and to which a second conduit 13 is connected for introducing a mixture of liquid ice cream ingredients into the chamber 10. Wakeman col. 1, ll. 15–18; col. 2, ll. 16–27; Figs. 1, 2. Wakeman discloses that a dasher is mounted within the chamber 10 that agitates the ingredients flowing through the chamber and causes the introduced air to be effectively mixed into and uniformly distributed throughout the liquid. Wakeman col. 2, ll. 43–50. Wakeman discloses that the apparatus further includes a discharge conduit 17 through which a first portion of the partially frozen mixture passes after exiting the chamber 10,

[6] Reference numerals used in the discussion of Wakeman refer to Figure 1 of Wakeman.

before continuing on to a packaging machine. Wakeman col. 2, ll. 36–43. Consistent with the Examiner's findings, Wakeman further discloses that discharge conduit 17 is also connected to a recirculation conduit 20 through which a second portion of the partially frozen mixture that exits the chamber 10 passes before it reenters the conduit 13 where fresh ingredients are also introduced, resulting in mixing of the fresh and partially frozen ingredient mixtures in conduit 13 before they enter chamber 10. Ans. 5; Wakeman col. 2, ll. 51–64. Wakeman discloses that the partially frozen mixture discharged from chamber 10 that passes through conduit 20 has a temperature of approximately 22ºF, while the temperature of the fresh ingredient mix is approximately 40ºF, resulting in a temperature of approximately 27ºF for the admixture of the partially frozen and fresh ingredients. Wakeman col. 2, ll. 64–70. As the Examiner correctly finds, Wakeman discloses that numerous advantages result from pre-cooling the fresh ingredients with the partially frozen ingredients before introduction of the admixture into the chamber 10, including more effective mixing of air into the liquid, providing a greater and more uniform distribution of the air throughout the liquid flowing through the chamber, which reduces the liquid's density, and causes it to be more efficiently cooled. Ans. 7; Wakeman col. 2, l. 70–col. 3, l. 9.[7]

[7] The Examiner also finds in essence that Swier discloses a device and method for making a soft frozen edible product that involves preparing a mix of ingredients in a mixer, directing the mixture via a conduit to a freezer where it is partially frozen, using a pump to continuously recirculate a first portion of the partially frozen mixture from the freezer back to the mixer through a recirculation line or conduit, and opening a diverting valve to selectively dispense a second portion of the partially frozen mixture from the freezer. Ans. 5.

We find no definition or limiting description in Appellants' Specification of a "churned product." Therefore, AAPA's disclosure of a conventional process for producing ice cream that involves churning an emulsion of ingredients in a continuous-process freezer with a dasher, reasonably corresponds to a process for producing a "churned product," as does Martin's disclosure of a process for producing a frozen dairy product that involves repeated agitation and mixing of ingredients. *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007) (During prosecution of patent applications, "the PTO must give claims their broadest reasonable construction consistent with the specification. . . . Therefore, we look to the specification to see if it provides a definition for claim terms, but otherwise apply a broad interpretation.").

In addition, Appellants do not dispute the Examiner's finding that neither AAPA's conventional process (depicted in Appellants' Figure 2), nor Martin's process for producing a frozen dairy product having 5–10% milk fat, involves slow churning. *Compare* Ans. 11–12, 16 *with* Reply Br. 3–4. Accordingly, we agree with the Examiner that Martin's disclosures indicate that churned, frozen dairy products having 5–10% milk fat were conventionally produced at the time of Appellants' invention without slow churning. Ans. 12. Appellants' arguments to the contrary, and the unsupported assertions in the White Declaration that the product disclosed in Martin is inferior and does not have the texture of a churned product, fail to establish reversible error in the Examiner's finding that Martin discloses preparing churned, frozen dairy products having 5–10% milk fat without slow churning, particularly in view of Martin's disclosure that the product has a creamy texture. Martin, col. 4, ll. 40–44. *In re De Blauwe*, 736 F.2d

699, 705 (Fed. Cir. 1984); *In re Payne*, 606 F.2d 303, 315 (CCPA 1979); *see also In re Greenfield*, 571 F.2d 1185, 1189 (CCPA 1978); *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974).

Because it was known in the art—as taught by AAPA—that ice cream having an even mixture of small entrapped air cells, and an even mixture of small ice crystals, has a rich, smooth, and creamy texture, Wakeman's disclosure that recirculating a partially frozen mixture of ice cream ingredients discharged from a mixing/freezing chamber so that they mix with, and pre-cool, fresh ingredients before the fresh ingredients enter the chamber, results in the air introduced into the chamber being more effectively mixed in and more uniformly distributed throughout the liquid flowing through the chamber, and results in more efficient cooling of the ingredient mixture, reasonably would have led one of ordinary skill in the art seeking to produce reduced-fat frozen dairy products as taught by Martin to modify the conventional process for producing a churned product disclosed by AAPA to include a recirculation process as taught by Wakeman to achieve the advantages taught by Wakeman.

In other words, one of ordinary skill in the art would have reasonably expected that more effectively mixing the air into a mixture of ice cream ingredients, more uniformly distributing the air throughout the ingredient mixture, and more efficiently cooling the mixture, as achieved by Wakeman's recirculation process, would result in ice cream having 5–10% milk fat as disclosed by Martin having a rich, smooth, and creamy texture, in light of AAPA's disclosure that rapidly-frozen ice cream having an even mixture of small entrapped air cells, and an even mixture of small ice crystals, has such a texture. Accordingly, one of ordinary skill in the art

seeking to produce a frozen dairy product having 5–10% milk fat would have been led to incorporate Wakeman's recirculation process into AAPA's conventional process for producing a churned ice cream product to achieve a rich, smooth, and creamy texture for the product, and the skilled artisan would not have had a reason to utilize slow churning or cold extrusion to achieve such benefits, as recited in claim 1. Accordingly, Appellants' arguments against the references individually, the statements in the White Declarations regarding Martin, and Appellants' assertion that one of ordinary skill in the art would not have been led to incorporate a recycle stream as recited in claim 1 into the process of AAPA, are unpersuasive of reversible error.

Appellants further argue that even if the applied prior art were combined, the combined disclosures would "not disclose the invention as claimed" in which "the first conduit combines the mix, compressed air and the first portion of the partially frozen emulsion from the freezer to be directed, once combined, into the mixer." App. Br. 17–18. Appellants contend that AAPA does not disclose a recirculation process, Swier's process does not include the introduction of compressed air, Swier's recirculation stream feeds directly into the storage chamber, and Martin does not remedy these deficiencies. *Id.* at 18. Appellants further argue that Wakeman discloses a separate feed stream 12 for the addition of air directly into chamber 10 and, therefore, the air is not combined in a first conduit with new and recycled mix such that the three combined elements are fed into the chamber together. *Id.* Appellants contend that the Examiner's rejection is, therefore, based on impermissible hindsight reconstruction of the claimed

process achieved by "cherry picking" random elements from the applied prior art. App. Br. 19.

However, as discussed above, the combined disclosures of the applied prior art would have led one of ordinary skill in the art seeking to produce a churned product having 5–10% milk fat as disclosed by Martin to incorporate a recirculation process into AAPA's conventional process so that the resulting product would have a rich, smooth, and creamy texture as taught by Wakeman. In addition, one of ordinary would have understood that the added air could be provided directly to the mixing chamber containing the recycled partially frozen mix and fresh mix as disclosed by Wakeman, or provided into the conduit to which the product mix is also added as disclosed by AAPA, with a reasonable expectation of successfully forming the same mixture or substantially the same mixture of air and ingredients in either case. This is particularly manifest in view of Wakeman's disclosure that effectively mixing the air into and uniformly distributing the air throughout the ingredient mixture with the dasher occurs in the mixing chamber, rather than in the conduit, reasonably indicates that adding air either to the chamber or to the conduit would not materially affect this process. Appellants' arguments are, therefore, unpersuasive of reversible error.

Appellants further argue that White Declarations, including Exhibits B–D, provide evidence of the commercial success of the C.R.E.A.M.® Freezer, which, according to Appellants, is the commercial embodiment of the invention of claim 1. App. Br. 20–22. The White Declarations state that the C.R.E.A.M.® Freezer is used by the vast majority of major ice cream manufacturers worldwide, including Edy's and Dreyer's (both Nestle

companies), Breyers (Unilever), Smith Dairy, Creamy Creations (HEB), Friendly's and Kemps, as supposedly demonstrated by Exhibits B and C. First White Declaration ¶ 6; Second White Declaration ¶ 6.

In addition, the second White Declaration states that Exhibit D provides a list of manufacturers that have purchased the C.R.E.A.M.® Freezer from its debut in December 2005 through February 2013, which, according to the Declarant, represent many of the leading ice cream manufacturers in the world, and Exhibit D lists the revenue generated from the sales. Second White Declaration ¶ 8.

However, although Exhibits B and C describe various "churned" products, Appellants do not provide any evidence indicating that the products were produced by the C.R.E.A.M.® Freezer, rather than the prior art "slow churned" process. App. Br. 20–22. In addition, Appellants do not provide any evidence indicating the portion of the market represented by the sales of the C.R.E.A.M.® Freezer set forth in Exhibit D. *Id.*

Moreover, to the extent that the C.R.E.A.M.® Freezer has enjoyed commercial success, Appellants do not provide sufficient evidence to demonstrate that the success was due to the merits of the method of claim 1. *Id.* In other words, Appellants do not establish that the commercial success of the C.R.E.A.M.® Freezer, to the extent it occurred, was due to features of the method of claim 1, rather than to unclaimed features of the machine, or other factors such as advertising and marketing. *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (Appellants must offer proof that the asserted commercial success occurred in the relevant market and "that the sales were a direct result of the unique characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality

of the patented subject matter."); *Geo. M. Martin Co. v. Alliance Machine Systems Int'l LLC*, 618 F.3d 1294, 1304 (Fed. Cir. 2010) ("The commercial success of a product is relevant to the non-obviousness of a claim only insofar as the success of the product is due to the claimed invention.").

The first White Declaration also states that because of the obvious success of low-fat, churned products in the marketplace, the success of the C.R.E.A.M.® Freezer demonstrates that a long-felt need was filled by the C.R.E.A.M.® Freezer. First White Declaration ¶ 8.

However, Appellants do not supply sufficient evidence to demonstrate that there was a long-felt need, i.e., an unsolved problem, which was solved by their invention. App. Br. 20–22; *In re Mixon*, 470 F.2d 1374, 1377 (CCPA 1973). Appellants do not show that the solution to the problem of developing a low-fat ice cream having a rich, creamy texture would not have been apparent to one of ordinary skill in the art from the teachings of the applied prior art, particularly AAPA. App. Br. 11–22; *In re Gershon*, 372 F.2d 535, 538–39 (CCPA 1967) (Establishing long-felt need requires objective evidence showing existence of a persistent problem recognized by those of ordinary skill in the art for which a solution was not known.). In fact, AAPA discloses that the slow churning or cold extrusion process was known in the art to be used to produce low-fat ice cream having a texture similar to that of ice cream having a higher percentage of milk fat. Spec. ¶ 9; *Newell Cos., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed. Cir. 1988) (The long-felt need must not have been satisfied by another before the invention by applicant.).

Moreover, even assuming that the C.R.E.A.M.® Freezer has enjoyed commercial success with a nexus to the method of claim 1, and has met a

long-felt need, the evidence of obviousness discussed above outweighs the evidence of non-obviousness. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1372 (Fed. Cir. 2007) (Evidence of unexpected results and other secondary considerations will not necessarily overcome a strong prima facie showing of obviousness.); *see also, e.g.*, *In re Nolan*, 553 F.2d 1261, 1267 (CCPA 1977) ("Considering all of the evidence, we are not persuaded that the evidence of the unexpected higher luminous efficiency and lower peak discharge current rebuts the strong showing of obviousness.").

We accordingly sustain the Examiner's rejection of claims 1, 7, 9–12, 14, 20, 22–24, 53, 54, and 57 under 35 U.S.C. § 103(a).

Claims 2, 3, 6, 15, 16, and 19

Appellants rely on arguments presented for claims 2, 3, 15, and 16 in asserting the patentability of claims 6 and 19, and we accordingly limit our discussion to claims 2, 3, 15, and 16. App. Br. 28.

Appellants argue that Martin does not disclose a process for making a churned product, much less a churned frozen dairy product, as recited in claims 2 and 15. *Id.* at 25–26. Appellants further argue that one of ordinary skill in the art would have understood that Martin discloses a process for making ice milk, rather than a process for making churned ice cream, as recited in claims 3 and 16. *Id.* at 27.

However, as discussed above, we find no definition or limiting description in Appellants' Specification of a "churned" product. Therefore, Martin's disclosure of a process for producing a creamy frozen dairy product that involves repeated agitation and mixing of ingredients reasonably corresponds to a process for producing a "churned" frozen dairy product. Martin col. 3, ll. 57–60; col. 4, ll. 8–14, 40–44. In addition, although

Appellants argue that one of ordinary skill in the art would understand Martin to disclose preparation of ice milk rather than churned ice cream, Appellants fail to provide persuasive evidence establishing that one of ordinary skill in the art would not have understood Martin's churned, creamy frozen dairy product having 5–10% milk fat to be ice cream. App. Br. 25–27. Appellants' unsupported arguments to that effect cannot take the place of evidence. *De Blauwe*, 736 F.2d at 705; *Payne*, 606 F.2d at 315; *see also Greenfield*, 571 F.2d at 1189; *Pearson*, 494 F.2d at 1405.

We accordingly sustain the Examiner's rejection of claims 2, 3, 6, 15, 16, and 19 under 35 U.S.C. § 103(a).

Rejection IV

The Examiner acknowledges that AAPA, Martin, Wakeman, and Swier do not disclose a diverting valve that diverts a first portion of the partially frozen mix of ingredients to the first conduit and diverts a second portion to the further manufacturing station. Ans. 9. The Examiner finds that Kress discloses a method and apparatus for making frozen confections that utilizes a three-way diverting valve to divert a first portion of frozen product for recirculation and a second portion of frozen product to further processing stations. *Id.* The Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a diverting valve as disclosed in Kress into the method of AAPA, modified as suggested by Martin, Wakeman, and Swier, because all of the references are directed to methods of making frozen confections, and a three-way diverting valve would have provided more accurate and precise control of flow parameters. Ans. 9–10.

Appellants argue that Kress' diverting valve causes a flow of product to be alternated from one path or another, and Appellants contend that Kress, therefore, does not disclose or suggest simultaneously transmitting a first portion of frozen emulsion back to a first conduit while transmitting a second portion of frozen emulsion to a further manufacturing station, as required by claims 13 and 26. App. Br. 29–30. Appellants also contend that Kress does not provide a reason why such simultaneous flow to different destinations would have been desirable. *Id.* at 30–31.

However, Appellants' arguments are unpersuasive of reversible error because they fail to consider Kress' disclosures as a whole. Kress discloses an apparatus and method for recirculating a processed frozen product, such as ice cream, that utilizes a divert valve. Kress col. 2, l. 65–col. 3, l. 1; col. 3, ll. 12–16; col. 4, ll. 10–12. Kress discloses that "the processed product *may* selectively be recycled back to the freezing cylinder . . . Alternatively, the divert valve 62 *may* be set to supply the frozen product to further processing stations . . ." Kress col. 4, ll. 14–19 (emphasis added). Kress' use of "may" indicates that utilizing the diverting valve to send product to either the freezing cylinder or further processing stations is an exemplary embodiment of Kress' invention, and is not a required aspect of Kress' method. Contrary to Appellants' arguments, Kress' disclosures are not limited to this exemplary embodiment. Kress reasonably teaches use of a diverting valve providing simultaneous flow. *In re Preda*, 401 F.2d 825, 826 (CCPA 1968) ("[I]t is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom."); *see also In re Boe*, 355

F.2d 961, 965 (CCPA 1966) (Disclosures in a prior art reference "must be evaluated for what they fairly teach one of ordinary skill in the art.").

In addition, as discussed above, Wakeman's disclosures reasonably suggest simultaneously sending portions of partially frozen ice cream ingredients through a recirculation conduit to a mixing/freezing chamber and through a discharge conduit. Wakeman col. 2, ll. 36–43, 51–65. Accordingly, we agree with the Examiner that the combined disclosures of the applied prior art as a whole reasonably would have suggested incorporating a diverting valve such as reasonably taught by Kress into the method of AAPA modified as suggested by Martin, Wakeman, and Swier to more precisely control the flow of partially frozen ice cream ingredients.

We, accordingly, sustain the Examiner's rejection of claims 13 and 26 under 35 U.S.C. § 103(a).

Rejection III

We summarily affirm the Examiner's rejection of claims 8 and 21 under 35 U.S.C. § 103(a) because Appellants do not contest this rejection. App. Br. 10–32; 37 C.F.R. § 41.37(c)(1)(iv) (requiring that "arguments shall explain why the examiner erred as to each ground of rejection . . . [and that] any arguments or authorities not included in the appeal brief will be refused consideration by the Board"); *see also* Manual of Patent Examining Procedure (MPEP) § 1205.02 (9th ed., Mar. 2014) ("If a ground of rejection stated by the examiner is not addressed in the appellant's brief, appellant has waived any challenge to that ground of rejection and the Board may summarily sustain it, unless the examiner subsequently withdrew the rejection in the examiner's answer.").

DECISION

In view of the foregoing, we AFFIRM the Examiner's rejections of claims 1–3, 6–16, 19–24, 26, 53, 54, and 57 under 35 U.S.C. § 103(a), but REVERSE the Examiner's rejection of claims 1–3, 6–16, 19–24, 26, 53, 54, and 57 under 35 U.S.C. § 112, second paragraph.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED